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Joakim Norrgard

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YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

EXAMINER

DENNISON, JERRY B

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/510,108	Applicant(s) NORRGARD ET AL.	
	Examiner J. Bret Dennison	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

RESPONSE TO AMENDMENT

1. This Action is in response to the Amendment for Application Number 10/510,108 received on 5/09/2008.
 2. Claims 14-27 are presented for examination.
 3. The prosecution for this case has been transferred to another Examiner.
- All corresponding communications should be directed to Examiner's contact information, provided below.

Specification

4. The disclosure is objected to because of the following informalities:
Applicant's Specification refers to "the flowchart of Figure 3" (see page 12, lines 6-7). However, Figure 3 does not include the elements as described in this section of the disclosure. It appears that Figure 4 describes the flowchart elements recited on page 12.

Appropriate correction is required.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:
6. Claims 20 and 21 include a "computer readable storage medium".
Applicant's Specification does not provide the proper antecedent basis for this terminology in the claims, and it is therefore impossible to determine what subject

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matter this language covers, in terms of statutory and non-statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claim 20 recites the limitation "the software code portions" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 14-19 and 22-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
10. Claims 14-19 include a method for creating a map. The claimed invention impermissibly covers every substantial practical application of, and thereby preempts all use of, an abstract idea as the method is not tied to any specific machine.

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11. Claim 22 includes a "Resource Manager comprising "means for" limitation(s) which may be implemented in software. The "means for" limitation specifically points to element 502 of Figure 5. As explained on page 8, line 5, "Figure 5 shows a resource manager in accordance with the present invention. Applicant's Specification provides evidence that Applicant intends for the Resource Manager to be implemented in software (page 3, lines 25-28) by stating that the resource manager may be implemented within a server or router. As such, the resource manager itself is not the server or router, but only software within these devices (i.e. computer program).

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

M.P.E.P. 2601.1 Section I states, "Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material."

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Claims 22-26 do not provide the computer-readable medium needed to realize the program's functionality. As such, claims 22-26 are not limited to statutory subject matter and are therefore non-statutory.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 14-17, 19-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US patent 6131117), hereinafter referred to as Clark, in view of Diebboll et al (US patent 5886643), hereinafter referred to as Diebboll.

14. Regarding claims 14, 20, and 22:
method, (Claim 1) resource manager, (console or management station, abstract) and computer program (Claim 21, line 66 "application tool") for creating a map of available physical resources on the interface level within an IP network, (abstract, "IP map of the network" with respect to the resources. Abstract.) performing the steps of: -combining (303) a topology map of said IP network with resource information that comprises information about identities of logical addresses and

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quantity of logical addresses. (Col 5, lines 8-10). Clark discloses all the limitations as disclosed except for the method is characterised in the further step of: performing (304) a mapping between said logical addresses and a physical interface within said IP network.

Dieboll discloses the method is characterised in the further step of: performing (304) a mapping between said logical addresses and a physical interface within said IP network. (Col 11, lines 1-10)

The general concept of providing is well known in the art as illustrated by Dieboll who discloses performing a mapping between said logical addresses and a physical interface within said IP network in a network topology method.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Clark to include the use of performing a mapping between said logical addresses and a physical interface within said IP network in his advantageous method as taught by Dieboll in order to improve network topology methods.

15. Regarding claims 15 and 23:

Clark discloses the method, resource manager and means for the following, wherein the topology map is obtained by a topology aware resource manager. (Col 4, lines 41-41, and 46-51)

16. Regarding claims 16 and 24:

Clark discloses the method, resource manager and means for wherein the

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mapping is performed by collecting information from network elements, e.g. routers by using SNMP. (Col 4, lines 5-12 disclose that the network view which can be thought of as a map is provided by routers using SNMP)

17. Regarding claim 17:

Clark discloses the method wherein said mapping is performed by a resource manager. (Col 4, line 43-46 discloses that the console, which is the resource manager and which also uses SNMP line 55, provides a map of the network.)

18. Regarding claim 21:

Clark discloses a computer program product stored on a computer usable medium, comprising readable program for causing a processing means within an IP network to control the execution of the steps of claim 14. (Claim 21, lines 66 “application tool”, and Col 5, lines 65 and Col 6 lines 1-8 discloses the memory and software processes.)

19. Claims 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark and Diebboll in view of Tseng (US Patent 6119159) et al, hereinafter referred to as Tseng.

Regarding claims 19 and 26:

Clark discloses all the limitations as disclosed except for specifying that the logical address is an IP address.

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Tseng discloses the limitation wherein said logical address is an IP address.

("logical Internet Protocol IP address" , Col 7, lines 15-16)

The general concept of providing a logical address which is an IP address is well known in the art as illustrated by Tseng who discloses a logical address which is an IP address in a network management system and method.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Clark to include the use of specifying that a logical address is an IP address in his advantageous method as taught by Tseng in order to improve network management systems and methods.

20. Claims 18 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark and Diebboll in view of Takashima (US patent 6985960) et al, hereinafter referred to as Takashima.

Regarding claims 18 and 25:

Clark discloses all the limitations as disclosed except for the method and resource manager wherein said resource manager is implemented within a router or a server.

Takashima discloses the method (Claim 11, in which the information is stored in a device which transmits information which can be thought of as a server) and resource manager wherein said resource manager is implemented within a router or a server. (Claim 3)

The general concept of providing a method and resource manager wherein said resource manager is implemented within a router or a server is well

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known in the art as illustrated by Takashima who discloses a resource manager, which is implemented within a router or a server.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Clark to include the use of a resource manager, which is implemented within a router, or a server in his advantageous method as taught by Takashima in order to improve network mapping systems and methods.

21. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark and Diebboll as applied to claim 14 above, and further in view of Germain et al. (US 6,900,822).

22. Regarding claim 27, Clark and Diebboll disclosed the limitations as described in claim 14. Diebboll further disclosed generating reports about network activity between the nodes of the network (Diebboll, col. 2, lines 25-35) and generating a view of the network from the monitored data collected from network probes which monitored traffic over the network (col. 2, lines 60-65), the view containing information about the nodes as well as a measure of traffic between the nodes (Diebboll, col. 3, lines 1-5).

However, Clark and Diebboll did not explicitly state wherein the resource information further comprises bandwidth information of the physical interface.

In an analogous art, Germain disclosed creating visualization maps of a communication network in which metrics are mapped over nodes on a topology

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map (Germain, col. 4, lines 20-27), the metrics including “input and output throughput of device interfaces” (Germain, col. 4, lines 1-5).

Like Clark and Diebboll, Germain provides for visualization of a network topology and as such, one of ordinary skill in the art would have been motivated to combine their teachings since they are within the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the viewing of metrics, such as bandwidth, for each device of the topology in order to provide more information to users and administrators viewing the network topology to thereby provide for improvements in analyzing performance and flow across the network (Germain, col. 1, lines 25-30).

Response to Arguments

Applicant's arguments filed 5/9/2008 have been fully considered but they are not persuasive.

Applicant argues that "Clark does not map available physical resources, it instead maps nodes" [see Response,, p6, last paragraph].

Applicant asserts, “In the present Application, physical resources is defined, for example, in ¶ 0015 and 0016 of the Specification as published. The Office’s interpretation of “resource” would further require that Clark discuss not mapping unavailable physical resource, which it clearly does not.”

Examiner respectfully disagrees.

Examiner submits that there is absolutely no explicit definition of the term “physical resources” in ¶ 0015 and 0016 of the Specification as published, or in

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any other section of Applicant's Specification. Therefore, the Examiner has interpreted "physical resource" by its plain meaning as if the term was interpreted by one of ordinary skill in the art, to include anything considered to be a resource whether hardware, software, services etc. See MPEP § 2111.01.

Applicant has not provided any reasoning for why the interpretation of "resource" would "further require that Clark discuss not mapping unavailable physical resource". In any event, Examiner submits that there is no reason to map unavailable physical resources, as they are "unavailable". While the cited references do not negate the possibility of "not mapping unavailable resources", Examiner submits that there is no need for such since the entire point is to find available resources.

Applicant further asserts, "resource information in the present claims are not just the physical nodes but other attributes within the network" [see Response, page 7].

Examiner respectfully disagrees.

Again, Examiner submits that Applicant has not provided an explicit definition of what the resources are or what they must include. The use of the term "resource" may include a multiplicity of different types, such hardware, software, services, etc. but the term is not tied to any specific type, and Applicant's specification does not provide an explicit definition of what the term includes. Therefore, the Examiner has interpreted "resource information" by its plain meaning as if the term was interpreted by one of ordinary skill in the art. See MPEP § 2111.01.

23. With respect to claims 16 and 24, Applicant asserts, "Clark does not disclose 'the mapping is performed by collecting information from network elements by using SNMP.'" Applicant further asserts, "Clark determines the network topology based on message flows, not on SNMP" [see Response, page 7].

Examiner respectfully disagrees.

As explicitly disclosed in the previous rejection, Clark disclosed management systems providing the resource information using SNMP, as required by the limitation.

24. With regards to the rejection of claims 18 and 25, Applicant fails to provide any specific arguments regarding the limitations of these claims. As such, Applicant's arguments regarding these claims are moot.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as

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potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J. Bret Dennison/
Examiner, Art Unit 2143

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